

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
12 February 2004 (12.02.2004)

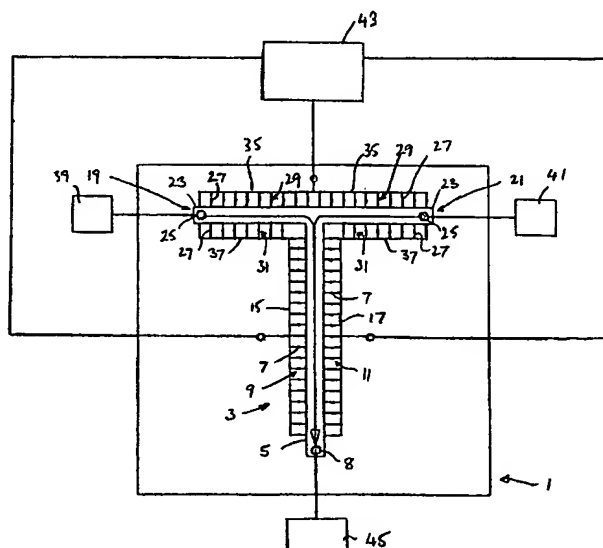
PCT

(10) International Publication Number
WO 2004/012852 A1

- (51) International Patent Classification⁷: **B01F 13/00**, 5/04, 3/18, 13/02
- (21) International Application Number: PCT/GB2003/003365
- (22) International Filing Date: 1 August 2003 (01.08.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 0217993.5 2 August 2002 (02.08.2002) GB
- (71) Applicant (for all designated States except US): **IMPERIAL COLLEGE INNOVATIONS LIMITED** [GB/GB]; Sherfield Building, Exhibition Road, London SW7 2AZ (GB).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **MANZ, Andreas** [CH/GB]; Department of Chemistry, Imperial College London, South Kensington, London, SW7 2AZ (GB). **VILKNER, Torsten** [DE/GB]; Department of Chemistry, Imperial College London, South Kensington, London, SW7 2AZ (GB).
- (74) Agent: **BODEN, Keith, McMurray; Fry Heath & Spence LLP**, The Gables, Massetts Road, Horley, Surrey RH6 7DQ (GB).
- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:**
— with international search report

[Continued on next page]

(54) Title: **POWDER MIXING MICROCHIP, SYSTEM AND METHOD**



(57) **Abstract:** A powder mixing microchip for mixing powder components, a powder mixing system incorporating the same and a powder mixing method for mixing powder components, the powder mixing microchip comprising: a powder mixing unit (1) for mixing a plurality of powder components to provide a powder mixture, the powder mixing unit including a powder mixing (5) channel in which powder components are mixed on being transported there through, a powder outlet port (8) through which the powder mixture is delivered, and a plurality of mixing gas supply channels (7) fluidly connected to the powder mixing channel at spaced locations along a length thereof through which mixing gas flows are delivered to effect mixing of the powder components on being transported through the powder mixing channel.